
2SC4913

Silicon NPN Triple Diffused

HITACHI

Application

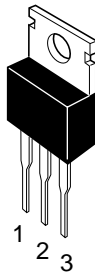
High voltage amplifier

Features

- High breakdown voltage
- $V_{(BR)CEO} = 2000 \text{ V min}$

Outline

TO-220AB



1. Base
2. Collector (Flange)
3. Emitter

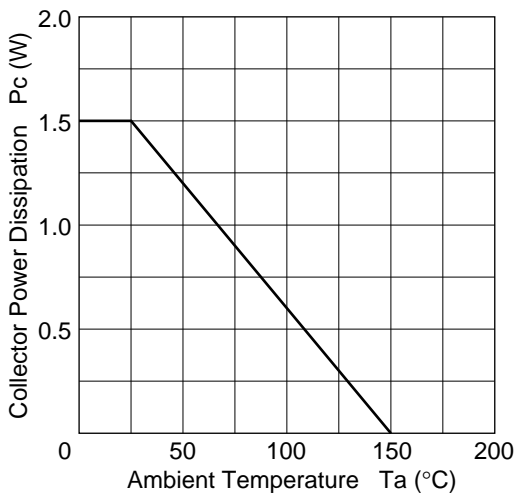
Absolute Maximum Ratings (Ta = 25°C)

| Item | Symbol | Ratings | Unit |
|------------------------------|---------------|-------------|------|
| Collector to base voltage | V_{CBO} | 2000 | V |
| Collector to emitter voltage | V_{CEO} | 2000 | V |
| Emitter to base voltage | V_{EBO} | 6 | V |
| Collector current | I_C | 20 | mA |
| Collector peak current | $I_{C(peak)}$ | 40 | mA |
| Collector power dissipation | P_C | 1.5 | W |
| Junction temperature | T_j | 150 | °C |
| Storage temperature | T_{stg} | -55 to +150 | °C |

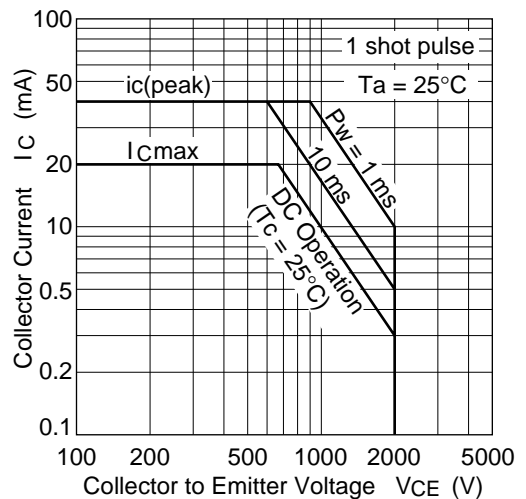
Electrical Characteristics (Ta = 25°C)

| Item | Symbol | Min | Typ | Max | Unit | Test conditions |
|---|---------------|-----|-----|-----|------|---|
| Collector cutoff current | I_{CES} | — | — | 500 | μA | $V_{CE} = 2000\text{ V}, R_{BE} = 0$ |
| Collector cutoff current | I_{CEO} | — | — | 5 | mA | $V_{CE} = 2000\text{ V}, R_{BE} = \infty$ |
| Emitter cutoff current | I_{EBO} | — | — | 500 | μA | $V_{EB} = 6\text{ V}, I_C = 0$ |
| DC current transfer ratio | h_{FE} | 10 | — | — | | $V_{CE} = 5\text{ V}, I_C = 1\text{ mA}$ |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | — | — | 5.0 | V | $I_C = 10\text{ mA}, I_B = 2\text{ mA}$ |

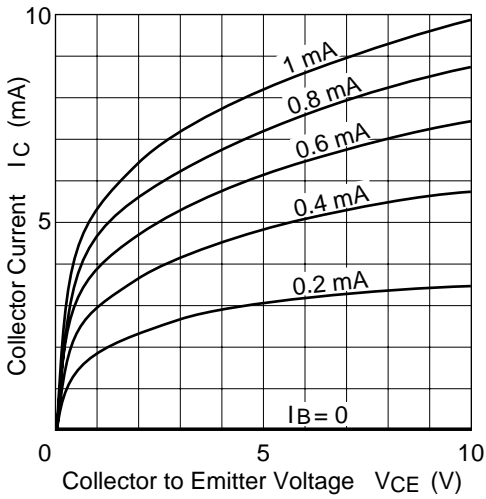
Maximum Collector Power Dissipation Curve



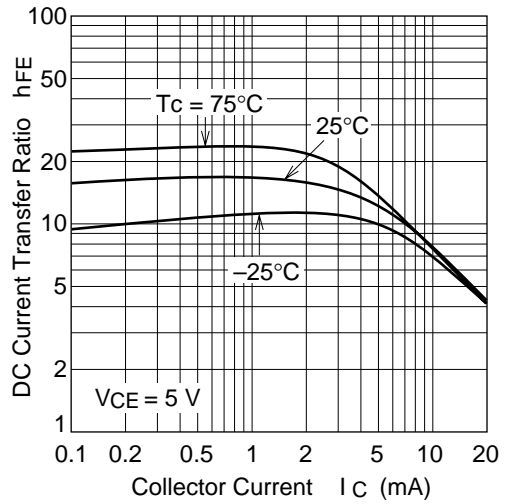
Area of Safe Operation



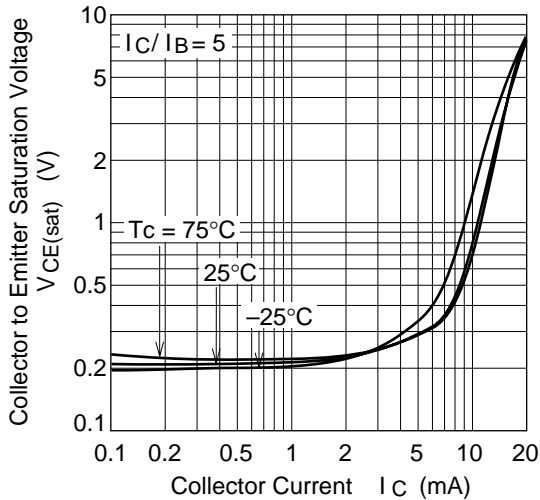
Typical Output Characteristics



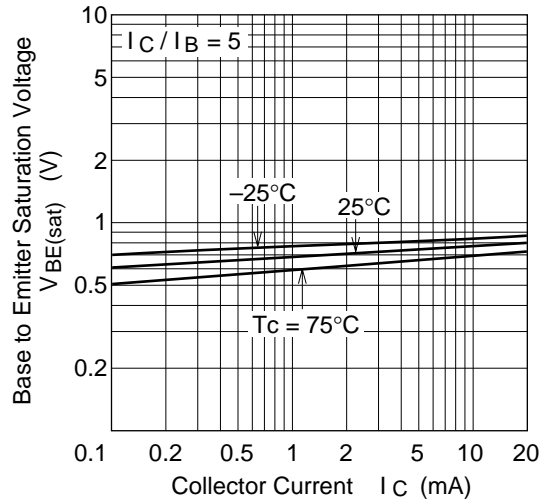
DC Current Transfer Ratio vs. Collector Current



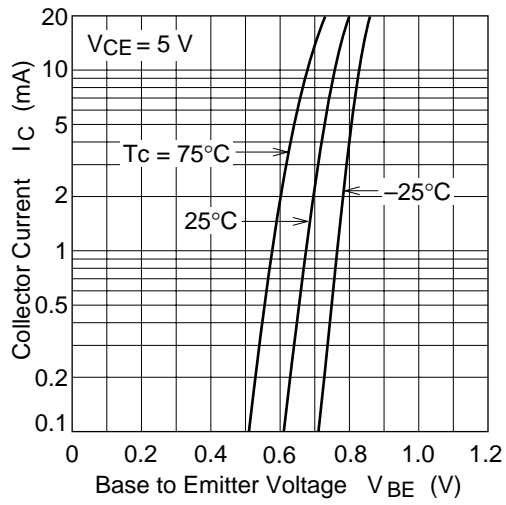
Collector to Emitter Saturation Voltage vs. Collector Current

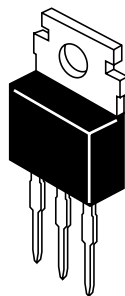


Base to Emitter Saturation Voltage vs. Collector Current



Collector Current vs. Base to Emitter Voltage





| | |
|--------------------------|----------|
| Hitachi Code | TO-220AB |
| JEDEC | Conforms |
| EIAJ | Conforms |
| Weight (reference value) | 1.8 g |

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